Agriculture
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Nova Scotia

Canada

A Working Paper

AGRICULTURE IN THE HALIFAX REGION OF NOVA SCOTIA: AN OVERVIEW

A Report Prepared By
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For Agriculture Canada

March, 1985

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1.0 INTRODUCTION

Nova Scotia is comprised of six distinct sub-regions; Valley, South Shore, Halifax, Northumberland, Strait of Canso and Industrial Cape Breton (see map). Each sub-region has a unique set of resources (land, labour, capital) which have resulted in different economic activities. The agri-food industry is established to some degree in all regions.

This report is a review of the current state of the farming sector of the agri-food industry in one region of Nova Scotia. It is intended to provide background information which could facilitate the initial stages of strategy and program development related to the particular needs of the Region. An analysis at the Regional level will permit a better understanding of how any development initiatives will affect the Nova Scotia economy. The report:

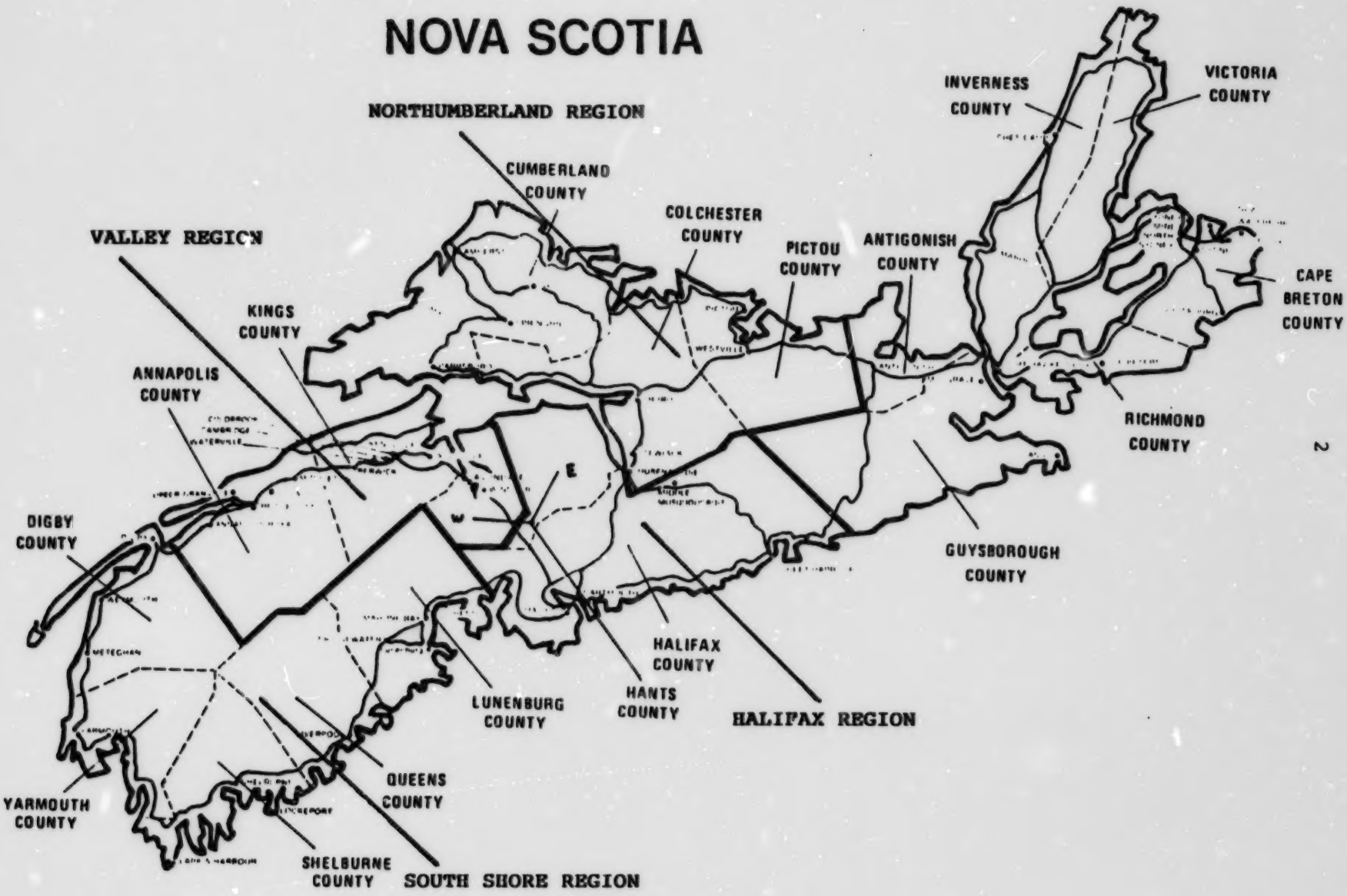
a. describes the Regions' agricultural industry in terms of utilization of land, labour and capital, and delineates some aspects of agricultural production, processing and market demand;

b. establishes opportunities for development of commodities produced in the Region;

c. denotes constraints inhibiting development of commodities produced in the Region; and

d. where appropriate emphasizes the uniqueness of agriculture in the Region, comparing it to the rest of Nova Scotia.

The first part of the report (Sections 2.0 and 3.0) is quantitative in nature, and is based on data from recent censuses of agriculture, as conducted by Statistics Canada, and on soil and climate data. Comparisons are drawn between 1981 farm



Map Adapted From Agricultural Directory '85,
U.S. Department of Agriculture and Marketing

data for the Region, and 1981 farm data for the rest of the province. Trends from 1971 to 1981 are compared also for the Region and for the rest of Nova Scotia. Regional census data, by county, are sometimes referred to in the text, and detailed tables of this material may be found in an appendix (Section 5.3).

Census figures cited relate to "census farms" for which the definition has been changed in recent years as follows:

1971: "a farm, ranch, or other agricultural holding on one acre or more with sales of agricultural products, during the 12 month period prior to the census, of $50 or more;"

1981: "a farm, ranch, or other agricultural holding with sales of agricultural products during the past 12 months of $250 or more." Operations with anticipated sales of $250 or more in 1981 were also included.

The second part of the report is more qualitative in nature, and is an evaluation of opportunities and constraints relevant to agricultural development in the Region. This part of the report ties together the following information:

a. quantitative data from Sections 2.0 and 3.0.;

b. results of interviews with several people from the federal and provincial governments (persons contacted and their organizational affiliations are listed in Appendix 5.2);

c. background data from available reports and papers.

This report is one of four similar reports on the Regions of Nova Scotia. A bibliography of material relevant to agricultural development in the Regions may be found in Appendix 5.1.

2.0 THE REGIONS' AGRICULTURAL RESOURCE BASE

2.1 Soils

The Halifax Region, like the rest of Nova Scotia, has no Class 1 agricultural lands. There are areas, however, of Class 2 land. Halifax County has over 2,500 hectares of this land. Hants County has almost 20,000 hectares of Class 2 land, and the portion of that county included in the Halifax Region (East Hants) add thousands of additional hectares of Class 2 land to the Regional total. Soils in this class have moderate limitations that restrict the range of crops or require moderate conservation practices. The soils are deep, hold moisture well, and have a high productivity level.

The areas of Class 3 soils are much larger. Halifax County has over 65,000 hectares. Hants County has very large areas of this soil class, 125,626 much more than any other county in Nova Scotia. A substantial proportion of these hectares is in East Hants. These soils are rated as fair to good for most classes of crops although certain soil types within the Class 3 grouping may be rated poor for potatoes and vegetables because of topography or stoniness. Their limitations with respect to wetness, moisture holding capacity, and fertility are more severe than Class 2 soils. As a result they require more exacting management and more extensive structural modification, such as drainage. Production costs can be higher than on Class 2 soils.

The areas of Class 4 soils are smaller than Class 3, but much larger than Class 2. Halifax County has almost 17,000 hectares.

Hants County has almost 43,000 hectares, and large amounts are in East Hants. These soils are, for the most part, rated as poor in their suitability for hay, grain, potatoes and vegetables. Most of these soils are rated as fair, or better, for pasture. Steep slopes contributing to erosion limit the cultivation of much Class 4 land.

An addition of areas of Class 2, 3, and 4 land gave a total for arable land in Nova Scotia, or any of its counties. Total arable land in the Halifax Region was 197,356 hectares, 12.5 percent of the province's total (Table 1). East Hants contained 57 percent of the Region's arable land (Table A1). Halifax had 43 percent.

The Halifax Region's improved arable land made up 7.7 percent of the Region's total arable land in 1971 and this proportion increased to 8.2 percent by 1981. In comparison the proportion of improved arable land to total arable land in the rest of the province was 10.3 percent in 1971 and 11.8 percent in 1981.

Within the Region both Halifax and East Hants had a low proportion of total arable land classed as improved land in 1981.

The Halifax Region contained almost 10 percent of the province's improved arable land and had 12.5 percent of the province's total arable land. Fifty-nine percent of the Region's improved land was in East Hants.

Table 1. Halifax Region, and rest of Nova Scotia: Arable Land

	HALIFAX REGION	REST OF NOVA SCOTIA	NOVA SCOTIA
Amount of:			
1971 Improved Arable Land (ha)	15,198	141,024	156,222
Residual Arable Land (ha)	182,158	1,234,602	1,416,760
Total Arable Land (ha)	197,356	1,375,626	1,572,982
Improved Land as Proportion of Total Arable Land (%)			
1971	7.7	10.3	9.9
1981	8.2	11.8	11.3
Proportion of Nova Scotia's:			
1971 Improved Arable Land (%)	9.7	90.3	100.0
Residual Arable Land (%)	12.9	87.1	100.0
Total Arable Land (%)	12.5	87.5	100.0

Source: Derived from Arbour, J. H., Residual Arable Land in the Maritime Provinces, Lands Directorate, Environment Canada, 1981.

Note: Halifax Region figures were estimated - see Table A1.

2.2 Climate

Nova Scotia has more frequent storms during the year than any other part of Canada. The frequent passing of low pressure areas, associated with bad weather and the maritime location provide Nova Scotia with substantial precipitation. The climate is a modified continental type, characterized by a wide range of temperature. Areas near the coast have milder winters and cooler summers, and have a longer frost-free period. The longer season is offset by cooler temperatures and fewer heat units are available for plant growth.

Distance from the coast and land elevation determine local variations in climate. The province can be divided into eight climatic regions.

The Halifax Region contains parts of three of the climatic regions:

1. A narrow coastal strip along the Bay of Fundy has a long cool summer, mild winter, frequent fog and moderate precipitation.

2. The inland part of the Halifax Region is a diverse geographic area with high rainfall and cool temperatures.

3. A coastal strip along the Atlantic Ocean has the coolest summer and warmest winter temperatures in the Province.

Annual precipitation in the Halifax Region ranges from 1200 mm to 1400 mm inland. Total precipitation from May to September inclusive ranges from 450 to 500 mm. The Region's frost free days range from 110 to 130.

Corn heat units vary considerably in the Region, and the range is generally from 1900 to 2300.

3.0 THE REGIONS' AGRICULTURE: RECENT TRENDS AND CURRENT STATUS

3.1 Resource Utilization

The Halifax Region reported 508 census farms in 1971 (Table 2). By 1981 this number had declined by 16 percent to 429 farms. In the rest of the province census farms had fallen from 5,500 to 4,616, a decline of 16 percent over the same period.

Within the Halifax Region the sharpest decline occurred in East Hants County where farm numbers fell by 21 percent between 1971 and 1981, in contrast to a 10 percent decrease in Halifax County. (Appendix Table A-2)

The decline in Halifax Region farm numbers was accompanied by a 21 percent decrease in the area of farmland during the 1971 to 1981 period. The decline in the rest of the province was only 13 percent. The average farm size decreased in the Region from 113 hectares in 1971 to 106 hectares in 1981. In the rest of the province farm size increased from 87 to 91 hectares.

When these farms were classified according to total land area, shifting patterns of size distribution emerged. Small farms (less than 53 hectares) increased in number in the Region whereas all other farm size groups decreased in absolute numbers, and at a faster rate than total farm numbers. In contrast, in the rest of Nova Scotia only the 53 to 96 hectares size group declined at a faster rate than total farm numbers. The net result was a substantial increase in the proportion of Halifax Region farms in the

Table 2: Halifax Region and rest of Nova Scotia: Farm numbers and land utilization

	Halifax Region			Rest of Nova Scotia		
	'71	'81	1981 as % of 1971	'71	'81	1981 as % of 1971
Total No. of Farms	508	429	84	5,500	4,616	84
Total Area of Farms (000 ha.)	57.4	45.6	79	480.8	420.4	87
No. of Farms by Land Area						
53 ha.	198	253	128	2,339	1,996	85
53 - 96 ha.	99	76	77	1,461	1,038	71
97 - 161 ha.	94	47	79	931	837	90
162 - 226 ha.	44	26	59	429	375	87
226 ha.	73	27	37	340	370	109
No. of Farms by Improved land area						
- 4 ha.	117	106	91	1,101	784	71
4 - 27 ha.	185	138	75	2,802	2,094	74
28 - 52 ha.	113	74	65	878	818	93
53 - 72 ha.	42	42	100	318	319	100
73 - 96 ha.	25	23	144	181	249	137
97 - 161 ha.	21	35	167	158	239	151
161 ha.	5	11	220	62	113	182
Use of Farmland - (ha)						
Improved	15,228	16,099	106	140,994	161,883	115
- Crops	8,739	10,827	124	89,659	101,955	114
- Pasture	5,177	4,094	79	38,316	42,012	102
- Summer Fallow	92	295	320	2,448	4,859	198
- Other	1,219	884	73	10,688	13,057	122
Unimproved	42,233	29,538	70	339,623	258,518	76
- Woodland	36,716	25,896	71	263,121	214,946	82
- Other	5,516	3,642	66	76,502	43,572	57

SOURCE: Statistics Canada Census of Agriculture

small farm group, and a general movement in the rest of Nova Scotia to larger farms.

While total land reported on Halifax Region Census farms declined 21 percent between 1971 and 1981, the area of improved land increased by 6 percent. Unimproved land, by comparison, declined 30 percent so that in 1981 35 percent of the Region's farmland was classed as improved and 65 percent as unimproved.

When county figures were examined for the Halifax Region, both counties showed an increase in their improved land base, a 6.5 percent increase in Halifax and 5.2 percent in East Hants. Both counties had large decreases in their unimproved land base, 34 percent in Halifax and 27 percent in East Hants.

In the rest of Nova Scotia the improved land area increased 15 percent from 1971 to 1981. Cropland increased at about the same rate. Improved pasture rose only by 2 percent. In 1981 improved land made up 39 percent of the farmland area in the rest of Nova Scotia compared to 35 percent in the Halifax Region.

The 1971 and 1981 distribution of the Region's farms according to their area of improved land was more heavily weighted towards the larger-scale farms than in the rest of Nova Scotia:

	Halifax Region		Rest of Nova Scotia	
Area of Improved Land	1971	1981	1971	1981
Less than 28 hectares	59%	57%	71%	43%
28 - 72 hectares	31%	27%	22%	48%
More than 72 hectares	10%	16%	7%	9%

A comparison of the farm size distribution (based on improved land) in 1981 with the distribution in 1971 showed that the relative shift from small to larger farms proceeded at a different rate in the Halifax Region as compared to the rest of the province. The shift to large farms (more than 72 hectares of improved land) was more pronounced in the Halifax Region whereas the main movement in the rest of the province was from small to medium size farms.

A number of characteristics of the farm labour force in the Halifax Region and the rest of the province were identified (Table 3).

Farm numbers declined from 1971 to 1981 at the same rate in the Halifax Region as in the rest of the province, but the number of young farmers (under 35 years of age) increased 41 percent in the Region as compared to 44% in the rest of Nova Scotia. The number of farmers 55 and over declined 41 percent as compared to 44 percent in the rest of the province. The resulting relative age distribution in the two parts of the province changed as follows:

	Halifax Region		Rest of Nova Scotia	
Age of Farmers	1971	1981	1971	1981
Less than 35 years of age	10%	17%	10%	17%
35 to 54 years of age	51%	49%	46%	47%
55 years of age and older	39%	34%	44%	36%

Table 3: Halifax Region and rest of Nova Scotia: Farm labor characteristics

	Halifax Region			Rest of Nova Scotia		
	'71	'81	1981 as % of 1971	'71	'81	1981 as % of 1971
No. of farms by age of operator						
under 25 years	1	11	1100	59	79	133
25 - 34 years	50	62	124	492	716	145
35 - 44 years	101	94	93	971	1,026	105
45 - 54 years	158	115	73	1,546	1,167	75
55 - 64 years	125	95	76	1,502	1,017	67
65 years and older	73	52	71	930	661	71
Total days of off farm work by farm operator during previous year.	37,865	37,663	99	420,625	412,505	98
No. of farms reporting	210	193	92	2,531	2,217	87
Ave. per farm reporting	180	195	108	166	186	112
Total weeks paid labor	8,446	10,087	119	103,857	141,654	136
No. of farms reporting	213	189	89	2,070	1,993	96
Ave. per farm reporting	40	53	133	50	71	142

SOURCE: Statistics Canada Census of Agriculture

Forty-five percent of Halifax Region farm operators reported off-farm work during 1980 compared to 41 percent in 1970. These proportions were slightly less than those reported in the rest of the province (46 percent in 1970 and 48 percent in 1980). Halifax Region farmers indicating off-farm work worked an average of 195 days off the farm in 1980, as compared to 186 days for the rest of Nova Scotia. In the decade Halifax Region farmers with off-farm employment increased their off-farm days by 15 while the increase in the rest of the province was 20 days.

Forty-four percent of Halifax Region farms engaged paid labour during 1980 compared to 42 percent in 1970. In the rest of Nova Scotia forty-three percent of farms reported paid labour in 1980, up from 38 percent in 1970. Region farms with paid labour had an average of 53 weeks in 1980 and 40 weeks in 1970, an increase per farm of 33 percent during the decade. The average for farms with paid labour in the rest of the province was 71 weeks in 1980 and 50 weeks in 1970 - an increase of 42 percent in the ten years.

Farm capital was examined in terms of the value of all capital, value of land and buildings, value of machinery and equipment, and the value of livestock and poultry (Table 4). Average capital value per farm in the Halifax Region in 1981 was $204,918, compared to $175,401 in the rest of the province. The combined influence of inflation and farm expansion increased average farm capital in the Region by 4.6 times and by 5.2 times in the rest of Nova Scotia. Average farm value of land and buildings increased 4.8 times in the Halifax Region and 5.8 times in the rest of the province. Farm values in machinery and equipment increased 4.4 times in the Region and 4.5 times elsewhere.

Table 4: Halifax - and rest of Nova Scotia: Capital on farms

	Halifax Region			Rest of Nova Scotia		
	'71	'81	1981 as % of 1971	'71	'81	1981 as % of 1971
Value of Capital on Farms						
- Total ($000)	22,628	87,910	388	183,457	809,653	441
- Ave. per farm ($)	44,543	204,918	460	33,356	175,401	521
Value of Land & Buildings						
- Total ($000)	14,901	59,784	401	117,332	573,340	488
- Ave. per farm ($)	29,333	139,357	475	21,333	124,207	582
Value of Machinery & Equip.						
- Total ($000)	4,174	15,459	370	35,694	134,829	377
- Ave. per farm ($)	8,216	36,035	438	6,490	29,209	450
Value of Livestock & Poultry						
- Total ($000)	3,553	12,665	356	30,410	101,486	333
- Ave. per farm ($)	6,994	29,522	422	5,480	21,986	401

SOURCE: Statistics Canada Census of Agriculture

In contrast average livestock and poultry values increased slightly faster in the Region (4.2 times) than in the rest of the province (4.0 times).

The average per farm distribution of capital between the three major classes was as follows:

	Halifax Region		Rest of Nova Scotia	
Capital Item	1971	1981	1971	1981
Land and buildings	66%	68%	64%	71%
Machinery and Equipment	18%	18%	20%	17%
Livestock and Poultry	16%	14%	16%	12%

The Halifax Region's utilization of capital shifted slightly towards land and buildings in the decade and slightly away from livestock and poultry, while in the rest of Nova Scotia the shift was stronger towards land and buildings and also stronger away from livestock and poultry.

3.2 Farming Activities

Hay production in the Halifax Region accounted for 82 percent of the Region's crop area in 1981 (Table 5). The area in hay increased by 31 percent from the 1971 Census. Increases occurred in barley, rye, and corn for grain.

Table 5: Halifax Region and rest of Nova Scotia: Field crops and vegetable areas

Area of Major	Halifax Region			Rest of Nova Scotia		
	1971	1981	1981 as % of 1971	1971	1981	1981 as % of 1971
Field crops (ha.)						
- Wheat	119	80	67	1,849	2,806	152
- Oats for grain	428	348	81	6,774	6,384	94
- Barley	130	200	154	3,393	3,285	97
- Rye	1	86	8600	744	2,068	278
- Mixed Grain	192	75	39	3,265	2,097	64
- Corn for Grain	16	53	331	1,186	1,793	151
- Tame Hay	6,806	8,903	131	54,978	62,202	113
- Silage/fodder corn	460	422	92	2,954	2,704	92
- Fodder Oats	160	165	103	1,449	1,594	110
- Potatoes	30	21	70	1,382	1,524	92
Area of Major Vegetables Crops (hectares)						
- All vegetables	100	50	50	2,364	3,111	131
- Beans	2	1	50	865	966	111
- Beets	-	2		19	39	205
- Cabbage	12	3	25	114	190	166
- Carrots	4	2	50	163	512	314
- Cauliflower	4	4	100	17	36	211
- Cucumber	2	2	100	40	57	142
- Green peas	1	-		178	666	374
- Lettuce	18	4	22	30	28	93
- Sweet corn	17	8	47	151	258	170
- Tomatoes	3	4	133	46	50	108
- Turnip	13	1	7	157	135	85
- Other	16	13	81	67	147	219

SOURCE: Statistics Canada Census of Agriculture

Hay was also the most widely grown crop in the rest of Nova Scotia, accounting for 61 percent of the crop area in 1981, and increasing by 13 percent from 1971 to 1981. Increases were recorded for wheat, rye, corn for grain, fodder oats and almost all of the vegetables.

Vegetable production in the Halifax Region decreased and by 1981 the Region had only 1.6 percent of the province's vegetable area.

Total cattle numbers in the Halifax Region increased by 21 percent from 1971 to 1981, while cattle numbers in the rest of Nova Scotia increased only by 5 percent (Table 6). Dairy cow numbers rose slightly (8 percent) in the Region, but replacement dairy heifers increased significantly (85 percent). The increase in the rest of the province for dairy heifers was only 19 percent, while cow numbers fell.

The Region's beef cow herd numbered 1,976 animals in 1981, twelve percent above the 1971 numbers. The beef cow herd increased at the same rate in the rest of Nova Scotia. Replacement beef heifers decreased in both areas, about 4 percent in the Region and 14 percent elsewhere in the province. In 1981 the ratio of beef replacements to cows in the Halifax Region was 1.0 to 2.5 and 1.0 to 3.0 in the rest of Nova Scotia. In contrast the ratio in 1971 was 1.0 to 2.1 in the Region and 1.0 to 2.3 in the rest of the province. These figures reflected some pessimism in the industry despite the increase in beef cow numbers in the 1970's.

Pig numbers decreased greatly in the Halifax Region from 1971 to 1981, dropping by 65 percent. In contrast pig

Table 6: Halifax Region and rest of Nova Scotia: Livestock and poultry on farms

	Halifax Region			Rest of Nova Scotia		
	1971	1981	1981 as % of 1971	1971	1981	1981 as % of 1971
Total Cattle	13,788	16,656	121	117,132	123,553	105
- dairy cows	5,845	6,335	108	35,363	29,902	85
- replacement dairy heifers	1,419	2,628	185	9,516	11,338	119
- beef cows	1,761	1,976	112	19,803	22,096	111
- replacement beef heifers[1]	834	800	96	8,488	7,328	86
- cattle on feed	566	955	169	10,886	11,663	107
Total Pigs	8,916	3,083	35	67,849	136,261	201
- sows 6 mo. and over for breeding	660	N/A		7,517	N/A	
Total Sheep	1,437	2,079	145	34,400	40,907	119
Total Chickens	351,398	N/A	X	2,704,415	N/A	
- layers over 5 months	225,366	N/A	X	981,689	N/A	
- replacement layers 5 Mo. - less than 5 months	98,515	N/A	X	492,979	N/A	
Total turkeys	1,500	N/A		68,868	N/A	
Total geese	1,157	177	15	1,255	1,818	144
Total ducks	776	451	58	1,050	3,167	301
Total mink	2,093	N/A		128,266	N/A	
Total rabbits	121			1,817		

SOURCE: Statistics Canada Census of Agriculture

[1]Includes some heifers for slaughter in 1971

numbers in the rest of Nova Scotia increased by 101 percent. By 1981 the Region had only 2 percent of the province's pig population.

The number of chickens in Nova Scotia totalled 3.4 million in 1981, an increase of 12 percent from 1971. Data on chickens in the Halifax Region were not available for the two census years.

Numbers of ducks and geese in the Halifax Region decreased from 1971 to 1981 and by 1981 were not significant in numbers, or as a proportion of the province's production.

The trend for utilization of tractors and selected machinery was established (Table 7). Tractor numbers in the Halifax Region increased ten percent from 1971 to 1981, whereas the growth was 17 percent in the rest of the province. Despite increases in farm scale in the Region the ratio of improved land to tractor numbers declined slightly, but remained the same in the rest of the province.

The distribution of tractors by size in 1981 was as follows:

Size of Tractor	Halifax Region	Rest of Nova Scotia
Less than 50 hp.	54%	59%
50 - 99 hp.	41%	36%
100 or more hp.	5%	5%

Table 7: Halifax Region and rest of Nova Scotia: Farm mechanization

	Halifax Region			Rest of Nova Scotia		
	1971	1981	1981 as % of 1971	1971	1981	1981 as % of '71
Tractors [1]	657	724	110	5,878	6,889	117
- less than 50 h.p.	N.A.	389	N.A.	N.A.	4,074	
- 50 - 99 h.p.	N.A.	297		N.A.	2,479	
- 100 or more h.p.	N.A.	38		N.A.	336	
- hectares improved land per tractor	23	22	96	24	24	100
- tractors per census farm	1.29	1.69	1.31	1.07	1.49	1.39
Combines	25	14	56	294	288	98
- hectares of grain per combine [2]	35	60	171	58	64	110
Swathers	9	26	289	72	302	419
Balers	248	263	106	2,069	2,341	113
- small bales (200 lb)	N.A.	253		N.A.	2,262	
- large bales (200 lb)	N.A.	10		N.A.	79	
- hectares of hay per baler	27	34	126	26	26	100
Forage Harvesters	39	51	131	251	366	145

SOURCE: Statistics Canada Census of Agriculture

[1] Excludes garden tractors
[2] Includes grain corn

Census data for 1971 do not separate tractors into size classes as in 1981. An assumption can be made that average tractor size was increasing, therefore, the hectares of improved land per horse-power was declining.

Tractor numbers per farm in the Halifax Region were higher than in the rest of Nova Scotia, and by 1981 the Region's farmers had 1.7 tractors per farm.

Combine numbers decreased substantially in the Region (44%) and decreased slightly (2%) in the rest of the province. Hectares of grain production per combine increased in both areas from 1971 to 1981, and the area per combine in 1981 was about the same in both areas.

Numbers of swathers increased sharply in the Halifax Region, but the increase was even more notable in the rest of Nova Scotia. More forage harvesters also were employed in 1981 than in 1971, especially in the rest of the province, and these increases probably reflected the trend towards increased feeding of corn silage in the 1970's. Balers increased by six percent in the Region and 13 percent in the rest of Nova Scotia. Hectares of hay per baler increased only in the Region. Large balers accounted for almost 4 percent of the Region's balers, slightly higher than in the rest of the province.

3.3 Farm Output

Statistics Canada categorizes Census farms in terms of the major source(s) of farm revenue. This "product type" classification is determined by the commodity or group of

commodities which accounted for 51 percent or more of total potential sales from the farm. Farms with sales of $2,500 or more were classified according to product type (Table 8). Mixed farms were classified according to whether livestock, field crops, or some other enterprise predominated. The "miscellaneous specialty" grouping included greenhouses, nurseries, mushroom houses, sheep, horses, apiaries, fur farms and goats.

The number of farms with sales of $2,500 or more increased by 14 percent in the Halifax Region from 1971 to 1981 while the increase was 25 percent in the rest of Nova Scotia. The number of dairy farms with sales over $2,500, in the Region, declined slightly (8%), and these farms made up 41 percent of the farms in 1981 compared to 51 percent in 1971. In the rest of Nova Scotia dairy farms made up 38 percent of all farms with sales over $2,500 in 1971 and this share declined to 25 percent in 1981.

Changes in the farm classification system made it impossible to derive accurate comparisons for cattle and hog farms during the 1971 - 1981 period. The 1971 figures for cattle farms included sheep and hog farms. Cattle farms, however, were in second place in the Halifax Region in 1981, making up 26 percent of total farms. Cattle farms made up 30 percent of the farms in the rest of the province.

The number of fruit and vegetable farms in the Region with sales over $2,500 increased from 1971 to 1981 (from 15 to 21 farms) while several other farm types (poultry, field crops, mixed) decreased. Fruit and vegetable farms increased greatly in the rest of the province, and in 1981 were in third position, behind cattle and dairy farms.

Table 8: Halifax Region and rest of Nova Scotia: Farms with sales of $2,500 or more by product type

	Halifax Region			Rest of Nova Scotia		
	1971	1981	1981 as % of 1971	1971	1981	1981 as % of 1971
Census farms with sales of $2,500 or more						
- Total	266	303	114	2,302	2,866	124
- Dairy	135	124	92	884	706	79
- Cattle[1]	60	78	130	595	868	146
- Hogs		14			182	
- Poultry	20	11	55	149	115	77
- Wheat	-	-		-	11	
- Small grains[2]	-	2		9	45	500
- Field crops[3]	4	3	75	72	71	98
- Fruit and Vegetables	15	21	140	235	428	182
- Misc. Specialty	7	40	571	102	282	276
- Mixed	15	10	67	152	158	103
- Livestock Comb.	5	9	180	72	83	115
- Field Crop Comb.	-	1		8	8	100
- Other Comb.	10	-	0	72	67	93
- Forestry	10			104		

SOURCE: Statistics Canada Census of Agriculture

1 Includes cattle, hogs and sheep in 1971
2 Excludes wheat farms
3 Excludes small grains farms

The distribution of Nova Scotia farms according to volume of annual sales was examined for 1971 and 1981 despite the problems of interpretation created by inflation. The number of farms with very small sales (less than $2,500) dropped 48 percent in the Halifax Region compared to a slightly lower drop of 45 percent in the rest of the Province (Table 9). In contrast there was a substantial increase (380 percent) in the number of Halifax Region farms with large sales, ($50,000 and more), and this increase was higher than the 318 percent in the rest of the province. In the Region these farms increased by a factor of 4.8 whereas elsewhere in the province the increase was by a factor of 4.2 over the ten year period.

Table 9: Halifax Region and rest of Nova Scotia: Farms by sales class

	Halifax Region			Rest of Nova Scotia		
	1971	1981	1981 as % of 1971	1971	1981	1981 as % of 1971
No. of Farms by Sales Class						
$250,000 or more		14			149	
100,000 - 249,999		45			307	
50,000 - 99,999	20	37	480	193[1]	351	418
25,000 - 49,999	30	33	110	253	309	122
10,000 - 24,999	88	53	60	616	548	88
5,000 - 9,999	65	66	102	556	568	102
2,500 - 4,999	63	55	87	684	634	93
less than $2,500	242	126	52	3,178	1,750	55
Institutional Farms	-			20		

SOURCE: Statistics Canada Census of Agriculture

[1] Farms with sales of $50,000 or more in 1971

4.0 OPPORTUNITIES AND CONSTRAINTS RELEVANT TO AGRICULTURAL DEVELOPMENT IN THE REGION

4.1 Introduction

Regional development in agriculture is usually seen in terms of an opportunity to expand production of a commodity already produced in the Region, or to begin to produce a commodity not previously associated with the Region. Often, however, development may be seen as development of a new technology, or the application of existing technology (e.g. farm drainage), and these changes may affect the production of more than one commodity. The focus in this report will be on commodity opportunities, although technology aspects will be noted.

Opportunities are sometimes viewed in terms of dramatic breakthroughs. These breakthrough opportunities are few in an established agricultural system. Therefore, an opportunity sometimes should be seen as retaining a market, or living with a slowly expanding market, for a product that is important in the Region. Supply management products, for example, may be important to a Region in terms of a contribution to the Region and to individuals producing those products. Retention of the right to produce, despite no growth or slow growth, may be regarded as an important contribution and the retention of these products at as high a level as possible may be regarded as a development opportunity - as a decrease may lead to frenetic efforts to develop less promising products. Due note will be taken, therefore, of the place of established commodities in the Region.

Commodity information in this report was examined for the following commodity groups:

1. National supply management commodities - dairy, chickens, eggs, turkeys.
2. Non supply management livestock commodities - beef, hogs, sheep.
3. Field crops.
4. Fruits.
5. Vegetables.
6. Other commodities.

Constraints to agricultural development were examined in terms of the resource base of soil and climate, the resources of labour and capital that were applied to the resource base, and the marketing system.

Nova Scotia agriculture operates under an overriding constraint which requires stating lest an examination of regional agriculture lead to an emphasis on the overriding constraint, and overlook opportunities that will exist in the Regions. The overriding constraint is locational in nature, as Nova Scotia producers are a long way from large consumer markets, and transportation costs make it difficult for producers to be competitive in those markets. The locational constraint is reinforced by another constraint - a soil and climate constraint that limits the range of products that can be produced in volume. The result is a provincial agricultural economy that:

a. Can not supply (on a net basis) the food requirements of Nova Scotia's population.

b. Can export from the province substantial amounts of some agricultural products - exports that partially offset large imports of grain and tropical food products.

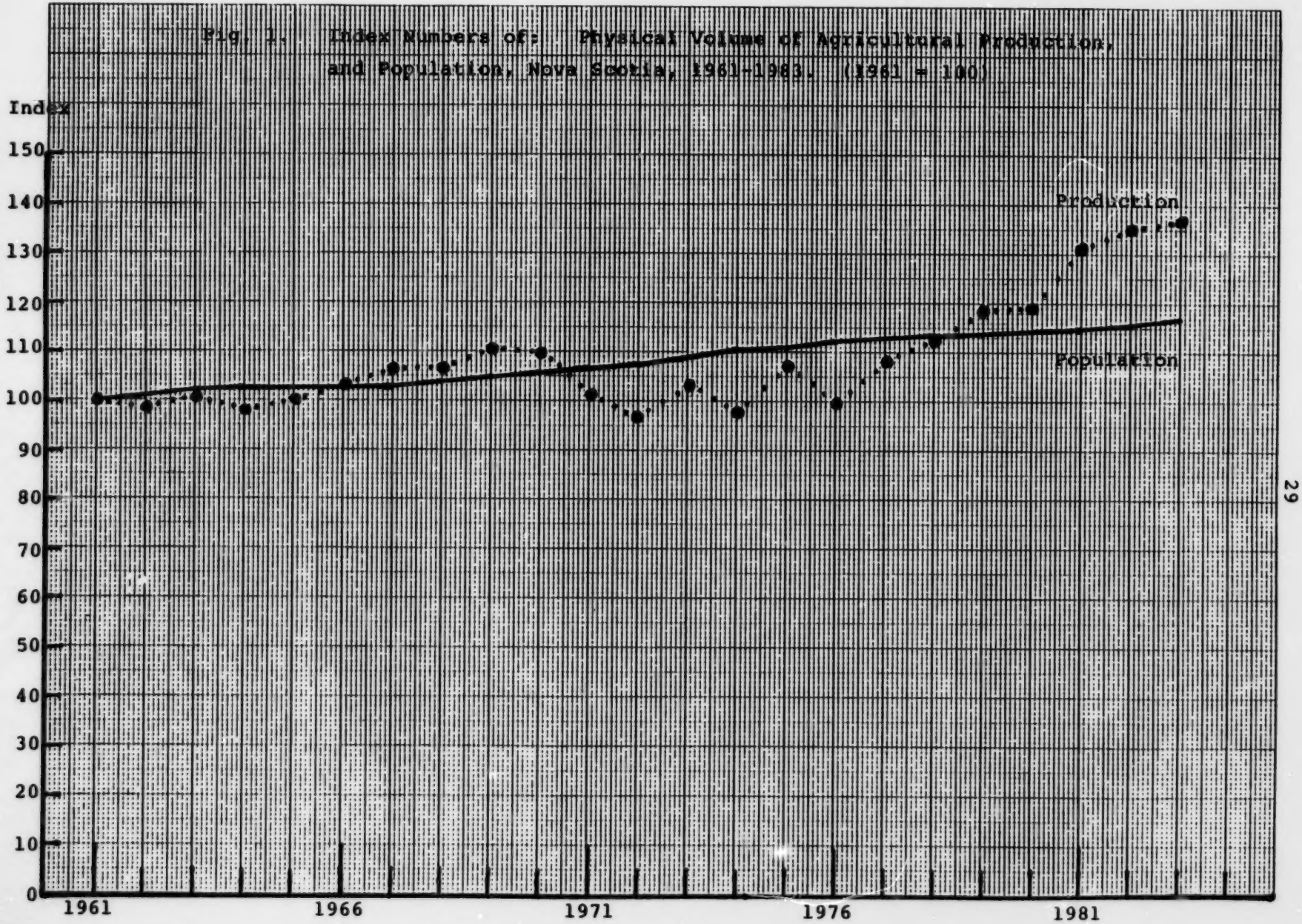
c. Relies on the domestic market of Nova Scotia for long-term growth.

The reliance on the provincial market can be illustrated by a tendency for the trend lines for population growth and agricultural production to run fairly close together (Fig.1). In some periods agricultural production tended to remain below the population line, at other times it was above. The agricultural production line trended upward more steeply than usual after 1976, probably as a result of a more profitable agriculture in the late 1970's, some government incentive, and a lower value Canadian dollar in recent years.

The Halifax Region's agricultural output is not a large part of Nova Scotia's agriculture. The Region's production, as measured by agricultural sales, was 8.5 percent of the province's production in 1980, down from the 10.5 percent of 1970. Within the Region the output of Halifax County decreased from 4.3 percent of Nova Scotia's production in 1970 to 3.7 percent in 1980. A probable reduction also occurred in East Hants, the estimated decrease being from 6.2 percent of provincial sales in 1970 to 4.8 percent in 1980.

The decade of the 1970's was a period of growth in Nova Scotia agriculture, although most of the growth was achieved in the second half of the period. Variations in physical output from year to year made it difficult to measure increases, but the percentage increase in physical production was 8.4 from 1970 to 1980, and 17.7 from 1971 to 1981.

Fig. 1. Index Numbers of: Physical Volume of Agricultural Production, and Population, Nova Scotia, 1961-1983. (1961 = 100)



Source: Statistics Canada

Physical output data were not available on a regional basis, but agricultural sales may be used as a rough measure of growth, when such sales for 1970 and 1980 were expressed in constant 1980 dollars.

Provincial growth in sales from 1970 to 1980 was 38 percent. Sales growth in Halifax County was 22 percent in the 1970 to 1980 decade. Sales growth in East Hants was estimated to be 7 percent.

The Halifax Region's growth was a low 12.8 percent and the Region accounted for only an estimated 3.5 percent of the growth in Nova Scotia's agricultural sales from 1970 to 1980.

4.2 National Supply Management Commodities

Commodities produced under the national supply management system generally provide producers with relatively good income compared to incomes available from producing many other products. Growth in the market tends to be slow, and subject to market trends and policy decisions arising from federal-provincial-producer agreements. The importance of the supply management products, however, in total agricultural output gives a real incentive to any Region to retain this production within the Region.

Dairy: Although dairy cow numbers in Nova Scotia have decreased, increased milk production per cow has increased total milk output. Production efficiency was high in the dairy industry, as output per cow increased at a 2.5 percent annual rate, well above the Canadian average. Fluid sales have increased steadily to supply the Province's requirements and some out-of-Province fluid sales. Milk for the manufacturing market has increased at about the same rate in the last two decades and supplies a portion of the manufacturing milk market of the Province.

The Halifax Region may have a larger share of the milk market in recent years, if cow numbers can be used as a measure. Dairy cow numbers in the Region in 1971 represented 14.2 percent of cows in the Province and this increased to 17.5 percent in 1981.

Constraints on the industry's further growth include those arising from the supply management system whereby the Province entered a national system and obtained advantages of industry stability, and income growth for producers, but had to give up a possibility of increased market share. This constraint results in cost problems in the milk manufacturing area, as Nova Scotia's only cheese plant operated at only 45 percent of capacity when the Province was within the Market Supply Quota.

A milk marketing review committee identified other problems of communication and organization in the industry. These problems included a recognition that demand for milk may decline, inconsistencies in the way dairies deal with milk shipments to Newfoundland, and differences in payments made to producers by the six dairies.

Hotels, restaurants and institutions purchased only 15 to 25 percent of their processed dairy products (cheese, yogurt, etc.) from Nova Scotia sources. Opportunities existed for increasing the market share but the constraint was the supply of milk awarded to Nova Scotia as its share of national quota.

Nova Scotia might have an opportunity to produce ultra high temperature products as the province has the only ultra high temperature plant in the Atlantic Provinces. The constraint is that negotiations are necessary with other provincial milk boards as ultra high temperature milk is in the same category as fresh milk.

Further constraints at the marketing level include:

a. Low per capita sales of cottage cheese and yogurt in markets in the Atlantic Provinces that are supplied from Nova Scotia.

b. Some feeling that many consumers may have a negative attitude to milk based on leak prone packages, high spoilage, inferior taste, and too many additives.

Poultry: Production of poultry meats is one of the most efficient segments of the provincial agriculture industry. Poultry meats,surplus to Nova Scotia's requirements,are exported to P.E.I., Newfoundland and other parts of North America. Production in the early 1980's was about 50 percent higher than in 1971.

Provincial egg producers, historically, supplied both local and export demands, but the production level in the early 1980's was about the same as in the early 1970's.

Data are inadequate to determine exactly the position of the Halifax Region in the poultry industry. In 1971 the Region has 11.5 percent of the Province's chickens. The Region had 2.1 percent of the turkeys in the same year.

The centralization of much of the poultry industry, the factory type character of the enterprises, and the supply management aspect, allow the industry to serve Nova Scotia in an organized way. Excess production can be shipped to other provinces in the Atlantic area. As poultry production occurs usually near the region in which it is marketed, little opportunity exists for further export growth.

Constraints include a vulnerability to changes in production costs, especially energy and feed,and an inability to fully service the demands for poultry products by Nova Scotia consumers. Hotels, restaurants and institutions probably obtain 90 percent of their eggs within the province, 80 to 90 percent of their chicken and only 25 to 30 percent of their turkey requirements. The size of Nova Scotia's quota allotment for chickens and turkeys is an overriding constraint on meaningful enlargement of the market.

4.3 Non-Supply Management Livestock and Livestock Products

Beef: Nova Scotia imports large amounts of beef as the province produces only about 25 percent of its requirements. Nova Scotia's beef industry has made modest progress in recent years in the face of strong competition from other areas, areas that could market a high value product in Nova Scotia despite high transportation costs. Generally beef production is a part-time or secondary farm venture, but there has been an increase in the number of larger specialized operations.

The Halifax Region had 8.2 percent of the Province's beef cows in 1971 and 8.9 percent in 1981, and cow numbers increased from 1,761 to 1,976 in the decade. Fifty-seven percent of the Region's beef cows were in East Hants.

Many producers in Nova Scotia regard beef production as an opportunity, in spite of a long period of relatively low returns. Part-time farmers, and producers using beef as a

secondary enterprise, use cattle to employ resources that would otherwise have been unused. In addition there is a large potential market as the Province produces only a small percent of its high quality beef requirements and only half of its boned beef needs. Hotels, restaurants and institutions purchase less than 25 percent of their volume from Nova Scotia sources. Feeder calves shipped from the province for finishing offer an opportunity for finishing within Nova Scotia. Nova Scotia has available suitable land and a favourable climate for pasture and hay production. Increased production in the province should not affect price levels.

Constraints hindering any rapid expansion of beef production in the Halifax Region include:

a. A period of low prices has led to pessimism in the industry.

b. Other areas, both national and international, have a competitive advantage in beef production in the form of cheaper costs and a structure for quality inspection and marketing.

c. Beef producers may now be able to rely on land prices being low enough to provide profitable operations - since the beef sector is most sensitive to land prices.

d. The dispersed and low-scale nature of the industry hinders extension and educational efforts to improve the industry.

e. The marketing structure is not oriented to readily accepting or handling Nova Scotia beef. Restaurants use large amounts of preportioned and frozen beef and the two preportioners purchase only federally inspected products and use a considerable quantity from outside the province. Present federal inspection facilities

might be inadequate to handle significant additional quantities of Nova Scotia beef, although there are differences of opinion on that matter. Processing plants would have to meet federal inspection standards to compete with out-of-province products in retail stores.

f. Consumers no longer regard beef as highly as they did ten years ago in terms of nutrition and value for money - therefore significant gains in consumption are doubtful.

Pork: Nova Scotia's pig numbers increased greatly from 1971 to 1981, but a large decrease in the Halifax Region decreased its share of the provincial total from 11.6 to 2.2 percent. The decrease in numbers was a high 78 percent in Halifax County and 38 percent in East Hants.

Relatively low prices have put pressure on the industry in recent years. Nova Scotia leads all other provinces in the quality of hogs processed. The province is 100 percent self sufficient in meeting fresh pork requirements and probably is over 60 percent self sufficient in meeting all pork consumption requirements. An opportunity exists to raise this percentage as local pork is preferred in the provincial marketplace - this preference arising from a quality product, and a freshness of product because of the local production.

Growth was high enough in the Nova Scotia hog industry by 1982-83 to require the shipment of over 50,000 hogs to New Brunswick packers as local facilities could not handle them.

Constraints to expanded production include:

a. Feed costs are high relative to costs in Ontario and Quebec.

b. Large capital construction costs are involved in expanding existing units or establishing new production units.

c. The rapid changes in the hog industry brought about by technological advances requires an emphasis on technology transfer to keep industry people up-to-date.

d. Swine operations increasingly require the services of trained managers and swine farm herdsmen.

e. Losses still occur from bruising and stress as animals move through the marketing system.

f. Low price and profit levels in recent years have imposed the largest constraint on the opportunity for expansion. The price structure for the whole red meats industry induces great uncertainty at the farm level.

g. Processing facilities are not adequate.

Sheep: Sheep numbers in the Halifax Region represented 4.0 percent of the provincial total in 1971 and this proportion increased to 5.1 percent by 1981. Sheep numbers increased during the 1970's and stabilized in the early 1980's. Sheep production is underdeveloped and small in scale, with many small operations and few specialized operations, although larger units are increasing in number. Few, if any, full-time farmers are totally dependent on sheep in the Halifax Region.

In addition to the structural constraints, other constraints include:

a. Any expansion involves sizable expenditures for handling facilities and fencing.

b. Low prices of the 1980-83 period have precipitated cutbacks in Nova Scotia, Canada, and the United States.

c. The marketing system has disadvantages associated with slaughtering facilities and uneven movement to market.

d. Suppliers have difficulty dealing with large retail organizations because of the small and inconsistent supplies.

e. The availability of competitive supplies from other sources, including Oceania, imposes a severe restraint on expansion. Consumers accept imported frozen products.

4.4 Field Crops

The Halifax Region contained only 3.5 percent of the Province's wheat, rye and grain corn area in 1981, and 3.2 percent in 1971. These crops were grown more widely in Halifax County than in East Hants. The traditional fodder crops increased, as a proportion of Nova Scotia's fodder crops,from 10.1 percent to 11.4 percent during the decade.

Organized marketing boards are influential in the marketing of Nova Scotia's grains and the Provincial Grain Commission operates three handling and storage operations. Hard winter wheat goes to the milling trade, grain corn to local feed mills and a distillery, and rye goes to a distillery and export milling markets. As a result a grain industry is developing in Nova Scotia that produces grain for several markets.

Seventy-nine percent of farm cash income on Nova Scotia farms in 1981 came from livestock and livestock products. Very large amounts of grain and forage crops were necessary to generate that output. As a result of the Feed Freight Assistance Act (1941) Nova Scotia producers were able to obtain cheaper grain than previously, and local grain growing was discouraged in many areas. Imported grain increased and made up 79 percent of Nova Scotia's feed grain requirements by 1981. Local production of

cereal grains increased by one third after 1960, partly as a result of various incentive programs, but the increase was less than the increase in livestock.

Higher freight rates and uncertainty as to long-term plans for feed freight assistance have created an opportunity for the large scale development of a cereal grain industry that will reduce dependence on western grains. Livestock producers will be encouraged to grow more of their own grain requirements and cash sales should increase. The necessary resources of land, labour and capital could be utilized for replacement of imported grain on a large scale. Important elements of a successful replacement program would include early seeding, improved drainage, quality seed, adequate and timely fertilization, disease and pest control, careful harvesting, proper storage and marketing facilities. Temperature, heat units, and the frost free period in Nova Scotia are generally favourable for cereal production. Class 2 and Class 3 soils are suitable for cereal production and large areas of these classes have never been cleared, or have reverted back to forest. One key to profitable grain production in Nova Scotia is the ability to obtain consistently high yields, and several constraints impede the attainment of that objective.

Constraints to large scale replacement of western grains include:

a. Soil constraints include low natural fertility and low pH (acid soils), excessive stoniness, poor soil structure, excess water, adverse topography, and soil degradation. High rainfall leads to drainage, plant disease and trafficability problems.

b. Sophisticated management will be required to deal with the soil constraints, and this requires a high level of technology transfer.

c. On-farm facilities for drying, storing and milling will be required.

d. A lack of skilled farm labour is an important deterrent to increased production, as specialized labour is required for farm operations based on machinery and chemical utilization.

e. Often areas where cereals could be grown are small and isolated.

f. Land tenure patterns indicate that many land holdings are small or unavailble for grain production.

g. There is uncertainty as to government transportation policy.

4.5 Fruits

The tree fruit sector of Nova Scotia's agriculture has concentrated in the Valley Region. In 1981, the Valley Region had 97 percent of the total tree fruit area in Nova Scotia and 98 percent of the apples.

The Halifax Region only had .14 percent of the Province's tree fruits area in 1981, and only seven hectares of apples were enumerated. The Region's share of the small fruits area of Nova Scotia was 4.3 percent in 1981, a drop from its share of 7.6 percent in 1971.

The Halifax Region had 37 times as many small fruit hectares as tree fruit hectares. The small fruit area increased from 204 hectares in 1971 to 258 hectares in 1981. A few hectares of strawberries were in Halifax County and East Hants, but most of the fruit area was devoted to other small fruits.

The production of strawberries for the fresh market may have reached a saturation point and any further plantings will be geared mainly to population growth - unless processing offers a further opportunity.

Constraints imposing limits on the increased production of strawberries in the Halifax Region included:

a. The region's agricultural resource base limits expansion, despite the Region's ready access to the Halifax market.

b. There is a need to develop and introduce a mechanical harvester for strawberries so that expansion can occur in the processing part of the industry and make Nova Scotia competitive with imported products from Poland, Mexico and the United States. A combination of the solid bed culture and mechanical harvester offers some opportunity of overcoming the competitive advantages of other producing areas. Nova Scotia producers have not been interested in the prices paid for processing berries, but a reduction in harvesting costs could make this market more attractive.

c. Other production constraints for strawberries include:

   - continuing problems in combatting disease in strawberry plantings,
   - the need for a mechanical raised bed shaper,

- the high cost of irrigation equipment constrains the purchase of this equipment,
- the lack of new cultivars to extend the strawberry season.

d. There may be problems at the processing level, including a need for additional facilities, including re-designed or overhauled strawberry de-hullers. Also energy costs will be high in plants with expensive cold storage facilities.

Constraints generally applicable to any of the small fruits include:

a. Competing sources provide hotels, restaurants and institutions with most of their fresh fruit salad and these supplies can only be displaced by Nova Scotia produce through a co-ordinated effort.

b. Hotels, restaurants and institutions purchased only 15 to 30 percent of their in-season supplies of fresh fruit and vegetables from Nova Scotia sources, and this proportion dropped to less than 10 percent for out-of-season purchases. Processed purchases from Nova Scotia sources were higher, 60 to 70 percent of the total.

c. The present marketing system for small fruits is difficult to co-ordinate and opportunities are missed to provide customers with a continuous supply of a quality product.

c. Grading, washing and packaging is on an individual basis, making it difficult to obtain quality and volume.

d. Nova Scotia producers can not usually meet the requirements of the few large buyers for large volumes of quality produce over an extended time period.

e. The major constraint remains that imposed by competition from imported produce.

4.7 Other Commodities

The greenhouse industry in Nova Scotia produces cut flowers, potted plants, bedding plants, and greenhouse vegetables. Fairly similar amounts of space are devoted to each product. The area peaked in 1973 and declined as energy costs increased. Halifax County increased the proportion of the province's greenhouse area from 3.4 to 9.7 percent from 1971 to 1981. Constraints of high energy costs, competition with vegetable imports, and high capital costs for new technology restrict any opportunity for real expansion. About two-thirds of the greenhouse area has been converted to wood fuel for heating.

The nursery business expanded rapidly in the 1960's and 1970's and there is room for further expansion as this industry, in the consumer's mind, is associated with the quality of life. The Halifax Region has a share of this industry.

Historically the apiculture industry has been centred in the Valley Region as climate, bee pasture, and closeness to the orchard industry offered encouragement. All Regions, however, have beekeepers. The industry expanded as both

4.6 Vegetables

Seventy-six percent of the vegetable sector of Nova Scotia's agriculture is concentrated in the Valley Region, and the remainder is dispersed fairly widely across other regions. The small area of vegetables in the Halifax Region was utilized for several vegetables. Hectares of most of these vegetables declined in the 1971 to 1981 period. Halifax County had about double the East Hants vegetable area in both census years.

The vegetable area in the Region was only 19 percent of the fruit area, but a larger range of commodities were produced.

A few vegetables are produced for fresh and processing markets and slightly more for storage. A larger number are fresh truck vegetables. There appear to be development opportunities in all three groups, although these are difficult to identify because of the large number of vegetables involved. Development opportunities have been identified for fresh vegetable sales to retail and wholesale operations in Nova Scotia if specified quantity, quality and price conditions can be met.

Constraints to increased production include:

a. At the production level major expenditures are required to obtain well drained land, and irrigation systems to protect against frost and to provide water in mid summer. Specialized machinery is needed to increase efficiency and reduce the requirements for seasonal labour.

b. Cooling facilities are necessary for some vegetables to retain quality, and not enough of these facilities are available.

commercial and hobby producers increased in numbers. Honey production is insufficient to meet provincial demand, but some preference for the local product offers an opportunity for expansion. As orchards and small fruits expand in area the apiculture industry will also expand. Constraints include the lack of bee pasture, bear depredation, diseases, parasites, need for specialized equipment, and a lack of co-ordination in honey marketing.

4.8 Other Constraints

The Halifax Region has been described in terms of commodity opportunities and constraints on the further expansion of various commodities. There are general constraints which apply to most commodities and which have not been consistently mentioned thus far.

These constraints include:

a. There may be a lack of research on varieties, production techniques, marketing structure, market opportunities, and use of the land, labour and capital resources.

b. There may be an inadequate system for technology transfer.

c. There may be a lack of service organizations, either business or government, to provide input services or marketing services.

The Region appears to be fairly well serviced by firms providing inputs to the farm production process. The answer is not as clear for marketing services as the scale of firm necessary for some functions (e.g. slaughtering and processing plants) will lead to a situation of inadequate service from the point of view of many individual producers.

4.9 Summary

The Halifax Region has 9.7 percent of Nova Scotia's improved arable land, and 8.5 percent of agricultural sales. The Region has the lowest rate of growth (12.8%) in agricultural sales during the 1970's, far behind the growth rate of Northumberland (51%) and Valley (40%) Regions, and just ahead of the South Shore rate (9.7%).

Proximity to the Halifax market and the restricted resource base encourage production of milk, chickens and beef. Fodder crops are important in the Region. Small fruit production is constrained by the resource base but the intensive nature of berry crops does leave some room for expansion. Urban demands for land also impact on the resource base in the Halifax Region. Nevertheless only 8.2 percent of the total arable land is improved land, a proportion considerably less than in the rest of the Province.

No obvious expansion opportunities exist in the Region. Any expansion likely will be distributed over several commodities.

Constraints are present for all commodities, and at all stages of the production and marketing system. Some of the most noticeable constraints are at the marketing level, as there is difficulty matching many farm production and marketing units with the needs of large buying organizations.

5.0 APPENDICES

5.1 Bibliography

1. Advisory Committees on Cereal, Protein, Corn and Forage Crops, Field Crop Guide to Variety and Pesticide Selection, Atlantic Provinces Agriculture Services Co-ordinating Committee., 1985.

2. Agriculture Canada, and Nova Scotia Department of Agriculture and Marketing, Government Incentive and Support Program Avaialable to the Nova Scotia Agri-Food Sector., 1984.

3. Agriculture Canada, and Nova Scotia Department of Agriculture and Marketing, Report of Task Force on Agricultural Development, 1981 - 1986.

4. Agriculture Canada, Commodity Analysis Tree Fruits in Nova Scotia, Agriculture Canada, Nova Scotia Department of Agriculture and Marketing; 1981.

5. Agriculture Canada, Nova Scotia Agriculture and Marketing, Agriculture and Food Industry Development Agreement 1982-1987.

6. Agriculture Canada., Production Base and Production Potential of the Eastern Grains Industry., 1982.

7. Agriculture Canada., Nova Scotia Department of Agriculture and Marketing, Apiculture., Agriculture Canada, 1981.

8. Agriculture Canada., List of Federal Livestock and Dairy Plants in Nova Scotia., 1985.

9. Agriculture Canada., List of Registered Hatcheries Nova Scotia., 1985.

10. Agriculture Canada., List of Licensees Fruit and Vegetables., 1984-1985.

11. Agriculture Canada., Working Papers - on three Regions, by M. Van de Riet, D. Dunlop.

12. Agriculture Canada., The Red Meat Industry in the Maritimes, 1984-1990, 1984.

13. Arbour, J. H., Residual Arable Land in the Maritime Provinces, Lands Directorate, Environment Canada, 1981.

14. Bennett, R. A., Annual Report Western Nova Scotia and Kings County., Nova Scotia Department of Agriculture and Marketing, 1983.

15. Coburg Consultants Ltd., Roadside Market Study, Agriculture Canada, 1984.

16. Connor, M. L., Johnson, M. A., Report on Investigative Travel to Denmark and Finland: Fox Industry., Agriculture Canada, 1984.

17. Cotterill, R. R., Cape Breton Agriculture: An Overview.. Agriculture Canada, Regional Development Branch, 1984.

18. Craig, D. L. et al., Berry Crops, A Commodity Analysis for Nova Scotia., Agriculture Canada and Nova Scotia Department of Agriculture and Marketing., 1984.

19. Cross Roads Blueberry Co-operative Ltd., Cross Roads Co-operative Fresh Blueberry Marketing Report., Agriculture Canada, 1984.

20. Deloitte Haskins and Sells, Economic Feasibility of New Marketing Facilities for Fresh Vegetable and Berry Crops in Selected Regions of Nova Scotia., Agriculture Canada, 1984.

21. Dunlop, Diane., Nova Scotia Sheep Sector Profile., Agriculture Canada, 1984.

22. Dzikowski, P., Nova Scotia Agroclimatic Atlas, Nova Scotia Department of Agriculture and Marketing, 1984.

23. Embree, C. G., Greenhouse Industry., Nova Scotia Department of Agriculture and Marketing, 1981.

24. Financial Post, Fur Under Fire., February 16, 1985.

25. Forsyth, F. R.,Highbush Blueberry Plantings of Nova Scotia., Agriculture Canada, 1985.

26. Forsyth, F. R., Annapolis Valley Apple Storage and Packing Facilities Evaluation Study, Agriculture Canada, 1984.

27. Finley, G., Johnson, M., Oxley, J., Fur Farming-NovaScotia,1981.

28. Farrell, P., Rideout, P., McIsaac, D., Nova Scotia Commodity Analysis-Maple, Agriculture Canada, 1981.

29. Fullerton, G., Hall, I., et al., Report on Wisconsin Cranberry Growing., Agriculture Canada, 1984.

30. Goit, J. B., Kunelius, H. T., European Fact-Finding Mission Forage Systems., Agriculture Canada, 1984.

31. Gunn, Campbell, et al., Vegetables A Commodity Analysis for Nova Scotia, Agriculture Canada and Nova Scotia Department of Agriculture and Marketing, 1984.

32. Gunn, T. C., Commodity Analysis High Energy and Protein Feed Nova Scotia, Agriculture Canada, 1981.

33. Kinsman, G. B.,An Overview of Nova Scotia Agriculture-Production and Marketing-Commodity and Regional Analysis. Nova Scotia Department of Agriculture and Marketing, 1983.

34. Milk Marketing Review Committee, Report of the Milk Marketing Review Committee, Agriculture Canada, 1984.

35. Nova Scotia Department of Agriculture and Marketing, Agricultural Statistics, 1982.

36. Nova Scotia Department of Agriculture and Marketing, The Land Resource Situation of Nova Scotia Agriculture, Marketing and Economics Branch, Nova Scotia Department of Agriculture and Marketing, 1984.

37. Nova Scotia Provincial Grain Commission, Annual Report, Year Ending, March 31, 1984.

38. Nova Scotia Agricultural College, Cereal Grain Production, 1984.

39. Nova Scotia Department of Agriculture and Marketing and Nova Scotia Federation of Agriculture, Feed Situation Report of the Joint Feed Committee of the Nova Scotia Federation of Agriculture and Marketing, 1981.

40. Nunn, T., Oxley, J., Commodity Analysis Beef-Nova Scotia., Agriculture Canada, and Nova Scotia Department of Agriculture and Marketing.

41. Peill, J., Milling Wheat Seeds Markets Identification Study., Agriculture Canada and Minas Seed Co-operative Ltd., 1984.

42. Pierce, Fred., Livingstone, Dave., Jacquard, Elizabeth, Agricultural Directory 85. Nova Scotia Department of Agriculture and Marketing, 1985.

43. Price Waterhouse Associates, Requirements for Fresh Marketing in Nova Scotia, Agriculture Canada, 1984.

44. Price Waterhouse Associates, A Market Analysis of the Food Service Sector in Nova Scotia. Agriculture Canada, 1984.

45. Porter, W. L., Newfoundland Hay Marketing Study, Agriculture Canada, 1984.

46. Robinson, D. E., Trends in Nova Scotia Agriculture 1970-1980, Nova Scotia Department of Agriculture and Marketing, 1982.

47. Robinson, Dave., Economics Report - The Sheep Industry in Nova Scotia., Nova Scotia Department of Agriculture and Marketing, 1979.

48. Ryle, S. G., Brookside Abattoir Acquisition Feasibility Study, Agriculture Canada, 1984.

49. Ryle, S. G., Yarmouth County Marketing Feasibility Study., Agriculture Canada, 1984.

50. Swinkles, P. M., Report on Hay Compressors, Agriculture Canada, 1984.

51. Task Force Report, Task Force for Horticulture, Agriculture Canada, 1980.

52. Vegetable and Potato Producers Association of Nova Scotia, Co-operative Vegetable Marketing in the United Kingdom, Agriculture Canada, 1984.

53. Webster Farms Ltd., Solid Bed Strawberry Culture Evaluation, Agriculture Canada, 1984.

Soil References

54. Agriculture Canada Soil Research Institute, Research Branch., Soils of Nova Scotia, (Map) 1972. Scale 1:450,000

55. Environment Canada, Lands Directorate, Atlantic Provinces, Soil Capability for Agriculture, (C.L.I. Map) 1974. Scale 1:1,000,000

56. Comeau, M. A., Land Capability for Agriculture in Nova Scotia, A County Breakdown, Lands Directorate, Fisheries and Environment Canada.

57. Hilchey, J. D., Canada Land Inventory, Report No. 8 - Soil Capability Analysis for Agriculture in Nova Scotia, Department of Regional Economic Expansion, 1970.

58. Nowland, J. L., The Agricultural Productivity of The Soils of The Atlantic Provinces, Soil Research Institute, Agriculture Canada, 1975.

5.2 Persons Contacted - (Alphabetical)

1. R. A. Bennett, Regional Agricultural Representative, Nova Scotia Department of Agriculture and Marketing, Kentville.

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5.3 Regional Census Data By County

Table A1. Distribution and disposition of arable land, by County, in Halifax Region of Nova Scotia

	Halifax	East Hants
Amount of:		
1971 Improved Arable Land (ha)	6,179	9,019
Residual Arable Land (ha)	78,430	103,728
Total Arable Land (ha)	84,609	112,747
Improved Land as Proportion of Total Arable Land(%)		
1971	7.3	8.0
1981	7.8	8.4
Proportion of County's Arable Land Classed as:		
Class 2 (%)	3	NA
Class 3 (%)	77	NA
Class 4 (%)	20	NA
County's Proportion of Regions:		
1971 Improved Arable Land (%)	40.7	59.3
Residual Arable Land (%)	43.1	56.9
Total Arable Land (%)	42.9	57.1

Source: Derived From Arbour, J. H., Residual Arable Land in The Maritime Provinces. Lands Directorate, Environment Canada, 1981.

Note: East Hants Figures were estimated, using Arbour's data for Hants County. An assumption was made that East Hants contained 60 percent of the total arable land in Hants County.

Table A2: Farm numbers and land utilization by county in Halifax Region of Nova Scotia

	Halifax		East Hants	
	1971	1981	1971	1981
Total Number of farms	251	225	257	204
Total area of farms (000 ha)	26.9	20.3	30.5	25.3
Number of farms by land area				
53 ha	122	113	76	140
53-96 ha	43	38	56	38
97-161 ha	30	29	64	18
162-226 ha	15	21	29	5
226 ha	41	24	32	3
Number of farms by improved land area				
4 ha	85	81	32	25
4-27 ha	86	68	99	70
28-52 ha	43	29	70	45
53-72 ha	14	18	28	24
73-96 ha	12	9	13	14
96-161 ha	9	17	12	18
161 ha	2	3	3	8
Use of farmland - hectares				
Improved	6,183	6,584	9,045	9,515
Crop	3,446	4,136	5,293	6,691
Pasture	1,992	2,039	3,185	2,055
Summer fallow	46	41	46	254
Other	698	368	521	516
Unimproved	20,732	13,743	21,501	15,795
Woodland	18,312	11,954	18,404	13,942
Other	2,419	1,789	3,097	1,853

SOURCE: Statistics Canada Census of Agriculture

Table A3: Farm labour characteristics by county in Halifax Region of Nova Scotia

	Halifax		East Hants	
	1971	1981	1971	1981
No. of farms by age of operator				
under 25 years	-	6	1	5
25 - 34 years	25	32	25	30
35 - 44 years	45	47	56	47
45 - 54 years	78	57	80	58
55 - 64 years	69	49	56	46
65 years and over	34	34	39	18
Total days of off-farm labor worked by farm operator during the previous year	20,017	19,970	17,848	17,693
No. of farms reporting	106	97	104	96
Average per farm reporting	189	206	172	184
Total weeks paid labor	4,030	4,437	4,416	5,650
No. of farms reporting	92	89	121	100
Average per farm reporting	44	50	36	56

SOURCE: Statistics Canada Census of Agriculture

Table A4: Capital on farms by county in Halifax Region of Nova Scotia

	Halifax		East Hants	
	1971	1981	1971	1981
Value of Capital on Farms				
Total ($000)	11,688	37,454	10,940	50,456
Average per farm ($)	46,566	166,462	42,568	247,333
Value of Land and Building				
Total ($000)	8,407	26,312	6,494	33,472
Average per farm ($)	33,494	116,942	25,268	164,078
Value of Machinery and Equipment				
Total ($000)	1,860	6,424	2,314	9,035
Average per farm ($)	7,410	28,551	9,004	44,289
Value of Livestock and Poultry				
Total ($000)	1,421	4,717	2,132	7,948
Average per farm ($)	5,661	20,964	8,296	38,961

SOURCE: Statistics Canada Census of Agriculture

Table A5: Field crop and vegetable areas, by county, in Halifax Region of Nova Scotia

	Halifax		East Hants	
	1971	1981	1971	1981
Area of Major Field Crops (ha.)				
- Wheat	89	59	30	21
- Oats for grain	185	165	243	183
- Barley	36	118	94	82
- Rye	--	64	1	22
- Mixed grain	49	37	143	38
- Corn for grain	--	32	16	
- Tame hay	2,560	3,125	4,246	5,778
- Silage/fodder corn	211	157	249	265
- Fodder oats	78	89	82	76
- Other fodder crops	70	44		61
- Potatoes	18	14	12	7
Area of Major Vegetable Crops (ha.)				
- All vegetables	66	34	34	16
- Beans	2	1	--	--
- Beets	--	1	--	--
- Cabbage	11	3	1	--
- Carrots	4	2	--	--
- Cauliflower	4	4	--	--
- Cucumber	2	1	--	1
- Green peas	1	--	--	--
- Lettuce	18	4	--	--
- Sweet Corn	3	1	14	7
- Tomatoes	2	--	1	4
- Turnips	4	1	9	--
- Other	8	9	8	4

SOURCE: Statistics Canada Census of Agriculture

Table A6: Livestock and poultry on farms by County in Halifax Region of Nova Scotia

	Halifax		East Hants	
	1971	1981	1971	1981
Total Cattle	5,378	6,238	8,410	10,418
- dairy cows	1,962	2,122	3,883	4,213
- replacement dairy heifers	472	870	947	1,758
- beef cows	787	854	974	1,122
- replacement beef heifers[1]	353	359	481	441
- cattle on feed	261	315	305	640
Total pigs	6,012	1,296	2,904	1,787
- sows 6 months and over for breeding	418	N/A	242	285
Total Chickens	154,541	104,937	196,857	N/A
- layers more than 5 months	84,156	N/A	141,210	N/A
- replacement layers less than 5 months	46,949	N/A	51,566	N/A
Total turkeys	-	N/A	1,500	N/A
Total geese	150	95	1,007	82
Total ducks	356	278	420	173
Total mink	2,543	N/A	450	N/A
Total rabbits	69		52	

SOURCE: Statistics Canada Census of Agriculture

[1] Includes some heifers for slaughter in 1971

Table A7: Farm mechanization by county in Halifax Region of Nova Scotia

	Halifax		East Hants	
	1971	1981	1971	1981
Tractors[1]	296	324	361	400
less than 50 h.p.	N.A.	195	N.A.	194
50 - 99 h.p.	N.A.	112	N.A.	185
100 or more h.p.	N.A.	17	N.A.	21
hectares improved land per tractor	21	20	25	
tractors per census farm	1.18	1.44	1.40	
Combines	10	7	15	8
hectares of grain per combine[2]	36	68	24	
Swathers	5	7	4	19
Balers	102	100	146	163
- small bales (less than 200 lb)	N.A.	99	N.A.	154
- large bales (greater than 200 lb)	N.A.	1	N.A.	9
- hectares of hay per baler	25	31	29	
Forage harvesters	18	20	21	31

SOURCE: Statistics Canada Census of Agriculture

1 Excludes garden tractors
2 Includes grain corn

Table A8: Farms with sales of $2,500 or more by product type, by county, in Halifax Region of Nova Scotia

	Halifax		East Hants	
	1971	1981	1971	1981
Census farms with sales of $2,500 or more	123	142	143	161
- Totalh.p.	45	41	90	83
- Dairy	31	32	29	46
- Cattle[1]		8		6
- Hogs	14	8	6	3
- Poultry	-	-	-	-
- Wheat	-	1	-	1
- Small grains[2]	2	1	2	2
- Field crops[3]	9	15	6	6
- Fruit and vegetables	7	30	-	10
- Misc. specialty	11	6	4	4
- Mixed	3	5	2	4
- Livestock Combination	-	1	-	-
- Field Crop Combination	8	-	2	-
- Other Combination	4		6	
- Forestry				

SOURCE: Statistics Canada Census of Agriculture

1 Includes cattle, hogs, and sheep for 1971
2 Excludes wheat farms
3 Excludes small grains farms

Table A9: Farms by sales class, by county, in Halifax Region of Nova Scotia

	Halifax		East Hants	
	'71	'81	'71	'81
No. of farms by sales class				
$250,000 or more		6		8
$100,000 - 249,999		21		24
50,000 - 99,999	9[1]	11	11[1]	26
25,000 - 49,999	13	16	17	17
10,000 - 24,999	37	23	51	30
5,000 - 9,999	30	33	35	33
2,500 - 4,999	34	32	29	23
less than $2,500	128	83	114	43
Institutional Farms	-		-	

SOURCE: Statistics Canada Census of Agriculture

[1] farms with sales of $50,000 or more in 1971